



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
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www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Sika Sarnafil, A Division of Sika Corp.
100 Dan Road
Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Steel Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 14-0624.13 and consists of pages 1 through 70.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 15-0731.12
Expiration Date: 07/05/21
Approval Date: 06/30/16
Page 1 of 70

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Steel
Maximum Design Pressure: -127.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
Textured G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
Textured G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 (10 ft)	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane with a non-woven felt backing.
Sikaplan Fastened	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Fastened Feltback	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Adhered	60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Ply Sheet TA 87	39" x 49' (1.5 sq.)	ASTM D6136	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Ply Sheet HA 87	39" x 49' (1.5 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**TABLE 1**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Sarnacol AD Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane or insulation adhesive.
Sikaplan Water Based Membrane Adhesive	5 gallons	Proprietary	Water-based dispersion membrane adhesive.
Sarnacol OM Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane adhesive.
Sarnacol OM Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnavap-10	20' x 100'	Proprietary	Polyethylene air/vapor barrier.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing
FR 10	48" x 250'	Proprietary	Non-asphaltic fiberglass-based fire-retardant slipsheet
FR 50	48" x 105'	Proprietary	Non-asphaltic fiberglass-based fire-retardant slipsheet



APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Sarnatherm	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm-25 PSI	Polyisocyanurate insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
ACFoam-II	Isocyanurate Insulation with fiber reinforced felt paper facer	Atlas Roofing Corp.
ACFoam-III	Isocyanurate Insulation with coated glass facer	Atlas Roofing Corp.
ACFoam-IV	Isocyanurate Insulation with heavy weight coated glass facer	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation with foil facer	Atlas Roofing Corp.
DensDeck	Silicon treated gypsum with fiberglass mat facer	Georgia Pacific Gypsum LLC
DensDeck Prime	Silicon treated gypsum with an enhanced fiberglass mat facer	Georgia Pacific Gypsum LLC
ENRGY 3	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
ENRGY 3 25 PSI	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
Type X Gypsum	Gypsum Wallboard	Generic
H-Shield	Isocyanurate Insulation with fiber reinforced felt paper facer	Hunter Panels, LLC
H-Shield HD	High density polyisocyanurate cover board with a coated glass facer	Hunter Panels, LLC
ISO 95+ GL	Isocyanurate Insulation with fiber reinforced felt paper facer	Firestone Building Products Company, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum-fiber cover board	United States Gypsum Corp.
SECUROCK Glass-Mat Roof Board	Gypsum cover board with a glass mat facer	United States Gypsum Corp.
Invinsa Roof Board	High density polyisocyanurate cover board with a coated glass facer	Johns Manville Corp.

APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	#12 Standard Roofgrip, #14 Roofgrip, #15 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
2.	Dekfast 12, Dekfast 14, Dekfast 15 HS	Insulation and membrane fastener	Various	SFS Intec, Inc.
3.	Sarnafastener	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
4.	RhinoBond Insulation Plate	Insulation fastener	Various	OMG, Inc.
5.	Sarnabar	Galvanized or stainless steel membrane fastening bar	Various	Sika Sarnafil, A Division of Sika Corp.
6.	Sarnaplate	Insulation fastening plate	3" round	Sika Sarnafil, A Division of Sika Corp.
7.	Sarnarail Polymer Batten Strip	Polymer Batten Bar	1" x 250'	Sika Sarnafil, A Division of Sika Corp.
8.	Sarnafastener-XP	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
9.	Sarnafastener MAXLoad, Sarnafil MAXLoad	Membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
10.	Sarnadisc MAXLoad Plate	AZ50 galvalume coated steel plate	3.5" round	Sika Sarnafil, A Division of Sika Corp.
11.	Sarnadisc XPN	Insulation and membrane fastener	1.5" x 3.75"	Sika Sarnafil, A Division of Sika Corp.
12.	RhinoBond Insulation Plate	Insulation fastening plate	Various	Sika Sarnafil, A Division of Sika Corp.
13.	OMG Super XHD	Insulation and membrane fastener	Various	OMG, Inc.
14.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.
15.	Sarnafastener #14	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
16.	Flat Bottom Metal Plate	Galvalume stress plate	3" square	OMG, Inc.
17.	OMG 3" Galvalume Steel Plate	Galvalume stress plate	3" round	OMG, Inc.
18.	Dekfast Galvalume Steel Hex	Galvalume AZ50 steel plate	2-7/8" x 3-1/4"	SFS Intec, Inc.
19.	Dekfast Galvalume Steel 3" Round	Galvalume AZ50 steel plate	3" round	SFS Intec, Inc.

20.	Trufast #12 DP	Insulation fastener	Various	Altenloh, Brinck & Co. U.S., Inc.
21.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.
22.	3 in. Ribbed Galvalume Plate	Round Galvalume plated steel stress plate	3" round	OMG, Inc.
23.	Sikaplan Fastener #14	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
24.	Sikaplan Board Plate	Round galvalume plated steel stress plate	3" round	Sika Sarnafil, A Division of Sika Corp.
25.	Sarnadisc RhinoBond	Black primer coated plate for use with PVC membranes	3" round	Sika Sarnafil, A Division of Sika Corp.
26.	Sikaplan RhinoBond Disc	Black primer coated plate for use with PVC membranes	3" round	Sika Sarnafil, A Division of Sika Corp.
27.	Sikaplan Board Fastener #12	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Name/Report</u>	<u>Test Identifier</u>	<u>Date</u>
Celotex Technical Center	TAS 114	MTS Job No. 258215	09/09/97
Factory Mutual Research Corporation	FM 4470	0P6A6.AM	03/03/94
	FM 4470	0X3A3.AM	01/31/94
	FM 4470	2X2A5.AM	01/31/94
	FM 4470	0B9A0.AM	10/22/96
	FM 4470	4B3A2.AM	06/19/97
	FM 4470	2B6A9.AM	08/25/98
	FM 4470	3D8A1.AM	12/23/97
	FM 4470	3012964	06/11/02
	FM 4470	3015643	12/06/02
	FM 4470	3016201	01/28/03
	FM 4470	3006785	05/06/04
	FM 4470	3017292	09/03/04
	FM 4470	3021131	07/07/05
	FM 4470	3024229	11/16/05
	FM 4470	3030053	09/12/07
	FM 4470	3028309	03/30/07
	FM 4470	3041256	07/12/11
	FM 4470	3001396	05/28/99
	FM 4470	3053265	10/30/14
	FM 4470	3039809	07/06/11
	FM 4470	3043459	05/11/12
	FM 4450	3023458	07/18/06
	FM 4470	3002351	02/28/03
	FM 4450	3011494	08/22/01
	FM 4470	3036355	11/10/09
	FM 4470	3035670	05/13/09
Underwriters Laboratories, Inc.	UL 790	R8992	05/15/13
Trinity ERD	FM 4470	4740.04.98-1	04/09/98
	ASTM D4434	S44790.06.13	06/05/13
	Physical Properties	S42480.08.12	08/20/12
	ASTM D4434	S44790.08.13	08/26/13
	FM 4474 & TAS 114	S36600.03.14	03/04/14
	ASTM D4434	S44790.07.14-R2	06/01/15
	ASTM D4434	S45990.06.14	06/02/14
	FM 4474 & TAS 114	SC7090.07.14-2-R6	09/29/15
	FM 4470 & TAS 114	S14000.08.09-R2	10/09/09

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies</u>	<u>Date</u>
Robert Nieminen, P.E.	Signed/Sealed Calculations	C(7), C(8), C(13), C(14), D(7), D(19) Fastening #5	04/29/16
FM Approval Deck Limitation	N/A	B(5), B(6), C(5), C(6), C(9) through C(12), C(15) through C(22), D(1) through D(6) and D(8) through D(19) Fastening #1-#4	06/22/16

APPROVED ASSEMBLIES:

Membrane Type:	Single Ply, PVC
Deck Type 2I:	Steel, Insulated
Deck Description:	18 – 22ga. 33 ksi. steel
System Type B(1):	Base layer of insulation mechanically attached, top insulation layer fully adhered with approved asphalt, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum $\frac{5}{8}$ " Type X Gypsum or $\frac{1}{4}$ " DensDeck.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield		
Minimum 1.3" thick or tapered	1, 2, 3, 6 & 16	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 6 & 16	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	1, 2, 3, 6 & 16	1:3 ft ²
Minimum 2" thick or tapered	1, 2, 3, 6 & 16	1:4 ft ²
DensDeck Prime		
Minimum $\frac{1}{4}$ " thick	1, 2, 3, 6 & 16	1:1.2 ft ²
Minimum $\frac{1}{2}$ " thick	1, 2, 3, 6 & 16	1:1.7 ft ²

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	N/A	N/A
ENRGY 3, ENRGY 3 25 PSI		
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime		
Minimum $\frac{1}{4}$ " thick	N/A	N/A

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25gal/sq. to the substrate allowed to dry. Following a second coat roller applied of adhesive at a rate of 1.0gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DenDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressures:

-45 psf. (See General Limitation #9)



NOA No.: 15-0731.12
Expiration Date: 07/05/21
Approval Date: 06/30/16
Page 10 of 70

Membrane Type:	Single Ply, PVC
Deck Type 2I:	Steel, Insulated
Deck Description:	18 – 22ga. 33 ksi. steel
System Type B(2):	Base layer of insulation mechanically attached, optional top insulation layer fully adhered with approved asphalt, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor Barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum $\frac{5}{8}$ " Type X Gypsum or $\frac{1}{4}$ " DensDeck.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield		
Minimum 1.3" thick or tapered	24 with 27	1:2 ft ²
Minimum 2" thick or tapered	24 with 27	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY-3, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	24 with 27	1:3 ft ²
Minimum 2" thick or tapered	24 with 27	1:4 ft ²
DensDeck Prime		
Minimum $\frac{1}{4}$ " thick	24 with 27	1:1.2 ft ²
Minimum $\frac{1}{2}$ " thick	24 with 27	1:1.7 ft ²

Note: Base layers of insulation shall be mechanically attached with fasteners and density described above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	N/A	N/A
ENRGY 3, ENRGY 3 25 PSI		
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime		
Minimum $\frac{1}{4}$ " thick	N/A	N/A



Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: (*With ISO*) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(*With DensDeck Prime*) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, PVC
Deck Type 2I:	Steel, Insulated
Deck Description:	18 – 22ga. 33 ksi. steel
System Type B(3):	Base layer of insulation mechanically attached, optional top insulation layer fully adhered with approved asphalt or adhesive, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Any UL or FM approved vapor barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum ¼” Type X Gypsum or DensDeck.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield, ISO 95+GL, ENRGY 3 Minimum 1.4” thick or tapered	1, 3, 6 & 16	1:2 ft²

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield, ISO 95+GL, ENRGY 3 Minimum 1.4” thick or tapered	N/A	N/A
DensDeck Prime Minimum 1/4” thick or tapered	N/A	N/A

Note: Optional top layer of insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.



Membrane:

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DenDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With ACFoam-II, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressures:

-45 psf. (See General Limitation #9)

Membrane Type:	Single Ply, PVC
Deck Type 2I:	Steel, Insulated
Deck Description:	18 – 22ga. 33 ksi. steel
System Type B(4):	Base layer of insulation mechanically attached, optional top insulation layer fully adhered with approved asphalt or adhesive, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Any UL or FM approved vapor barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum ¼” Type X Gypsum or DensDeck

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield, ISO 95+GL, ENRGY 3 Minimum 1.4” thick or tapered	24 with 27	1:2 ft²

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield, ISO 95+GL, ENRGY 3 Minimum 1.4” thick or tapered	N/A	N/A
DensDeck Prime Minimum 1/4” thick or tapered	N/A	N/A

Note: Optional top layer of insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.



Membrane:

(*With ISO*) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(*With DenDeck Prime*) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Maximum Design Pressures:

-45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-20ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with two Traxx/5 fasteners, with ¾ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type B(5): Base layer of insulation mechanically attached, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV Minimum 2" thick	6 with 8	1:1 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied to the substrate at 0.75 gal/sq. and to the roof cover at 0.5 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol AD Feltback Membrane Adhesive or OM Feltback Membrane adhesive applied in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with two Traxx/5 fasteners, with $\frac{3}{4}$ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type B(6): Base layer of insulation mechanically attached, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV Minimum 2" thick	6 with 8	1:1 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18 – 22ga. 33 ksi. steel
System Type C(1): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum $\frac{5}{8}$ " Type X Gypsum or $\frac{1}{4}$ " DensDeck

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime Minimum $\frac{1}{4}$ " thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.3" thick or tapered	1, 2, 3, 6 & 16	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 6 & 16	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.4" thick or tapered	1, 2, 3, 6 & 16	1:3 ft ²
Minimum 2" thick or tapered	1, 2, 3, 6 & 16	1:4 ft ²



Top Insulation Layer (Continued):**Insulation Fasteners
(Table 3)****Fastener
Density/ft²**

DensDeck Prime
Minimum 1/4" thick
Minimum 1/2" thick

1, 2, 3, 6 & 16
1, 2, 3, 6 & 16

1:1.2 ft²
1:1.7 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25gal/sq. to the substrate allowed to dry. Following a second coat roller applied of adhesive at a rate of 1.0gal/sq. or with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime)
Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime)
Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

**Maximum Design
Pressures:**

-45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18 – 22ga. 33 ksi. steel
System Type C(2): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck.

Fire Barrier (Optional): Minimum $\frac{5}{8}$ " Type X Gypsum or $\frac{1}{4}$ " DensDeck

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime Minimum $\frac{1}{4}$ " thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.3" thick or tapered	24 with 27	1:2 ft ²
Minimum 2" thick or tapered	24 with 27	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.4" thick or tapered	24 with 27	1:3 ft ²
Minimum 2" thick or tapered	24 with 27	1:4 ft ²



Top Insulation Layer (Continued):**Insulation Fasteners
(Table 3)****Fastener
Density/ft²**

DensDeck Prime
Minimum 1/4" thick
Minimum 1/2" thick

24 with 27
24 with 27

1:1.2 ft²
1:1.7 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:

Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

**Maximum Design
Pressures:**

-45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 16 – 22ga. 33 ksi. steel
System Type C(3): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	4, 8 & 12	See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum ¾” wide heat weld.

Maximum Design Pressures:	Maximum Pressure -45 psf (See General Limitation #9)	Fastener Spacing 2 ft.	Fastener Row Spacing 3 ft.
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Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 16 – 22ga. 33 ksi. steel
System Type C(4): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	4, 8 & 12	See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum 3/4” wide heat weld.

Maximum Design Pressures:	Maximum Pressure -45 psf (See General Limitation #9)	Fastener Spacing 2 ft.	Fastener Row Spacing 3 ft.
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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 16 – 22ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(5): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25” thick	4, 12 & 13	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum ¾” wide heat weld.

Maximum Design Pressures:	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
	-45 psf (See General Limitation #7)	2 ft.	3 ft.
	-60 psf (See General Limitation #7)	2 ft.	2 ft.



Membrane Type:	Single Ply, PVC
Deck Type 2I:	Steel, Insulated
Deck Description:	16 – 22ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.
System Type C(6):	All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25” thick	4, 12 & 13	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum ¾” wide heat weld.

Maximum Design Pressures:	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
	-45 psf (See General Limitation #7)	2 ft.	3 ft.
	-60 psf (See General Limitation #7)	2 ft.	2 ft.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22ga., Type B, Grade 40 steel deck fastened with Tek/5 fasteners and 5/8 in. diameter washers spaced 6 in. o.c. to bar joists at 7ft. spans. Side laps are fastened with Tek/2 fasteners spaced maximum 18 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(7): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 8 & 12	1:4 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures: -52.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22ga., Type B, Grade 40 steel deck fastened with Tek/5 fasteners and 5/8 in. diameter washers spaced 6 in. o.c. to bar joists at 7ft. spans. Side laps are fastened with Tek/2 fasteners spaced maximum 18 in. o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(8): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 8 & 12	1:4 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures: -52.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18 – 22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(9): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved polyisocyanurate listed in Table 2 Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum 5/8" thick	3 with 6	1:2 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the substrate or adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or Sarnacol 2170 VC adhesive applied to the substrate at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



Maximum Design Pressures: -52.5 psf; with G410 Felt, Textured G410 Felt or S327 Felt (See General Limitation #7)
-60.0 psf; with G410, Textured G410 or S327 (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18 – 22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(10): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved polyisocyanurate listed in Table 2 Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum 5/8" thick	3 with 6	1:2 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressures: -60.0 psf; (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 16 – 22ga., Type B, Grade 80 steel deck fastened 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(11): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25” thick	4, 8 & 12	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum ¾” wide heat weld.

	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Maximum Design Pressures:	-45 psf (See General Limitation #7)	2 ft.	3 ft.
	-60 psf (See General Limitation #7)	2 ft.	2 ft.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 16 – 22ga., Type B, Grade 80 steel deck fastened 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(12): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25” thick	4, 8 & 12	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3” wide side lap is sealed with a minimum ¾” wide heat weld.

	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Maximum Design Pressures:	-45 psf (See General Limitation #7)	2 ft.	3 ft.
	-60 psf (See General Limitation #7)	2 ft.	2 ft.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22ga., Type B, Grade 40 steel deck fastened with Tek/5 fasteners and 5/8 in. diameter washers spaced 6 in. o.c. to bar joists at 7ft. spans. Side laps are fastened with Tek/2 fasteners spaced maximum 18 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(13): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 9 & 12	1:4 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures: -60.0 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22ga., Type B, Grade 40 steel deck fastened with Tek/5 fasteners and 5/8 in. diameter washers spaced 6 in. o.c. to bar joists at 7ft. spans. Side laps are fastened with Tek/2 fasteners spaced maximum 18 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(14): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 9 & 12	1:4 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures: -60.0 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22ga., Type B, Grade 80 steel deck fastened 0.25 in. thick structural supports spaced 6 ft o.c. with Traxx/5 fasteners spaced 6 in. o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced maximum 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(15): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or over the base insulation layer.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, Sarnatherm, ACFoam-II, ACFoam-III, H-Shield, ENRGY 3, Multi-Max FA-3		
Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime		
Minimum 0.25" thick	1 (#14), 3, 15 with 6, 16	1:1.78 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Ply Sheet (Optional): Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressures: -60.0 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22ga., Type B, Grade 80 steel deck fastened 0.25 in. thick structural supports spaced 6 ft o.c. with Traxx/5 fasteners spaced 6 in. o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(16): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or over the base insulation layer.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved polyisocyanurate listed in Table 2 Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum 0.50" thick	1 (#14), 15 with 6, 16	1:1.6 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

Ply Sheet TA 87, torch-applied.

Ply Sheet (Optional): Ply Sheet HA 87, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Membrane: S327 Felt or G410 Felt in Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12-inch o.c.

Maximum Design Pressures: -67.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Type B, Grade 33 steel deck fastened to the 0.25" thick structural supports spaced maximum 6' o.c. with one #12 ICH Traxx/5 fastener spaced maximum 6 in. o.c. and with side laps secured with one #10 ICH Traxx/1 fastener spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(17): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 8 & 12	See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures:	Maximum Pressure -60 psf (See General Limitation #7)	Fastener Spacing 2 ft.	Fastener Row Spacing 2 ft.
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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Type B, Grade 33 steel deck fastened to the 0.25" thick structural supports spaced maximum 6' o.c. with one #12 ICH Traxx/5 fastener spaced maximum 6 in. o.c. and with side laps secured with one #10 ICH Traxx/1 fastener spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(18): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	4, 8 & 12	See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design Pressures:	Maximum Pressure -60 psf (See General Limitation #7)	Fastener Spacing 2 ft.	Fastener Row Spacing 2 ft.
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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(19): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25" thick	4, 8 & 12	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum ¾" wide heat weld.

	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Maximum Design Pressures:	-45 psf (See General Limitation #7)	12 in.	6 ft.
	-52.5 psf (See General Limitation #7)	12 in.	5 ft.
	-90 psf (See General Limitation #7)	6 in.	6 ft.
	-105 psf (See General Limitation #7)	6 in.	5 ft.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(20): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved cover board listed in Table 2 Minimum 0.25" thick	4, 8 & 12	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum ¾" wide heat weld.

	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Maximum Design Pressures:	-45 psf (See General Limitation #7)	12 in.	6 ft.
	-52.5 psf (See General Limitation #7)	12 in.	5 ft.
	-90 psf (See General Limitation #7)	6 in.	6 ft.
	-105 psf (See General Limitation #7)	6 in.	5 ft.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with two Traxx/5 fasteners and 3/4" thick washers spaced 6 in. o.c. and with side laps fastened with one Traxx/1 fasteners spaced 12 in. o.c. Perimeter securement spaced 12 in. o.c. along the 24 ft length and 6 in. o.c. along the 12 ft length using Traxx/5 fasteners and 3/4" thick washers.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(21): All layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board, Invinsa Roof Board, H-Shield HD Minimum 0.5" thick	3 with 6	1:1 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 Felt, G410 Felt or Textured G410 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive applied in four rows of 0.5" wide ribbons spaced 12" o.c. or adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Or

(Not with SECUROCK coverboards) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure: -82.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with two Traxx/5 fasteners, with ¾ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type C(22): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier (Optional): Minimum ¼” DensDeck, DensDeck Prime and SECUROCK Gypsum-Fiber Roof Board

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5” thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Glass-Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board Minimum 0.25” thick	6 with 8	1:1 ft ²

Note: Top insulation layer shall also be adhered with Sarnacol OM Board Adhesive or OlyBond 500 applied in ¾-inch ribbons spaced 12-inch o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



Membrane:

(Not with SECUROCK coverboards) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied to the substrate at 0.75 gal/sq and to the roof cover at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

**Maximum Design
Pressure:**

-127.5 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated, New Construction

Deck Description: Min. 22 ga, Type B, Grade 80 ksi steel deck fastened to 0.25 in. thick structural supports spaced 5 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(1): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: Sarnavap-10 vapor barrier applied directly to the deck or over the base insulation layer.
(Optional)

Fire Barrier: Minimum 5/8" gypsum, 1/4" DensDeck, or Atlas FR10 or FR50 secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.
(Optional)

One or more layers of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved Polyisocyanurate insulation board listed in Table 2		
Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening: Sarnafastener-XP fasteners with Sarnabars spaced 6" o.c. in rows 12' o.c. maximum fastened with Sarnafastener #14 spaced 6" o.c. through the field of the membrane and covered with a 7" minimum width cover strip with 1.5" welds on each side.

Maximum Design Pressures: -45.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated, New Construction

Deck Description: Min. 22 ga, Type B, Grade 80 ksi steel deck fastened to 0.25 in. thick structural supports spaced 5 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(2): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: Sarnavap-10 vapor barrier applied directly to the deck or over the base insulation layer.
(Optional)

Fire Barrier: Minimum 5/8" gypsum, 1/4" DensDeck, or Atlas FR10 or FR50 secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.
(Optional)

One or more layers of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved Polyisocyanurate insulation board listed in Table 2		
Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening: Sikaplan Fastener #15 fasteners with Sarnabars spaced 6" o.c. in rows 12' o.c. maximum fastened with Sarnafastener #14 spaced 6" o.c. through the field of the membrane and covered with a 7" minimum width cover strip with 1.5" welds on each side.

Maximum Design Pressures: -45.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(3): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Fastener Type</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 PSI-25, ISO 95+ GL, H-Shield Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening #1: Sarnafastener with Sarnabars spaced 6" o.c. in rows 12' o.c. maximum fastened with Sarnafastener spaced 6" o.c. through the field of the membrane and covered with a 7" minimum width cover strip with 1.5" welds on each side. (*Maximum Design Pressure: - 52.5 psf. (See General Limitation #7)*)

Maximum Design Pressures: See Fastening Pattern. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(4): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Fastener Type</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 PSI-25, ISO 95+ GL, H-Shield Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sikaplan Board Fastener #12 with Sarnabars spaced 6" o.c. in rows 12' o.c. maximum fastened with Sarnafastener spaced 6" o.c. through the field of the membrane and covered with a 7" minimum width cover strip with 1.5" welds on each side.

Maximum Design Pressures: -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(5): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any Approved Cover Board listed in Table 2 Minimum 0.25" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10) attached to deck as specified below.

Fastening #1: Sarnafastener-XP fasteners with Sarnadisc-XP plates spaced 6 in. o.c. in staggered rows spaced 9.5 ft. o.c. Side lap is sealed with minimum 3/4" wide heat weld.

Maximum Design Pressures: -52.5 psf (See General Limitations #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(6): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any Approved Cover Board listed in Table 2 Minimum 0.25" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sikaplan Fastener #15 fasteners with Sarnadisc-XPB plates spaced 6 in. o.c. in staggered rows spaced 9.5 ft. o.c. Side lap is sealed with minimum 3/4" wide heat weld.

Maximum Design Pressures: -52.5 psf (See General Limitations #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22ga., Type B, Grade 80 steel deck fastened with Tek/5 fasteners and 5/8 in. diameter washers spaced 6 in. o.c. to bar joists at 7 ft. spans. Side laps are fastened with Tek/2 fasteners spaced 18 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(7): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below:

Fastening #1: Sarnafasteners-XP fasteners and Sarnadisc XPN plates spaced 6" o.c. within 5" wide side laps spaced 54.5" o.c. Laps are sealed with a 1.5" heat weld.

Maximum Design Pressures: -60.0 psf. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(8): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3 Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening #1: Sarnafastener-XP fasteners with Sarnadisc-XPN plates spaced 6" o.c. within 5.5" wide laps spaced 114.5" o.c. Laps are sealed with a 1.75" wide heat weld on outside edge of lap.

Maximum Design Pressures: -60.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(9): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3 Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sikaplan Fastener #15 fasteners with Sarnadisc-XPB plates spaced 6" o.c. within 5.5" wide laps spaced 114.5" o.c. Laps are sealed with a 1.75" wide heat weld on outside edge of lap.

Maximum Design Pressures: -60.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min.18 ga., Type B, Grade 80 steel deck fastened to structural supports spaced 5.5' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps secured with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(10): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 (10 ft), Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sarnafastener MAXLoad fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressures: -75.0 psf (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-20 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps secured with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(11): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening #1: (*With S327 (10 ft)*) Sarnafastener-XP fasteners and Sarnadisc XPN plates spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Laps are sealed with a minimum 0.5" wide outside edge heat weld.
Maximum Design Pressure -45 psf. (See General Limitation #7)

Fastening #2: (*Not with S327 (10 ft)*) Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad plates spaced 6" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps are sealed with a minimum 0.875" wide outside edge heat weld.
Maximum Design Pressure -60 psf (See General Limitation #7)

Maximum Design Pressures: See Fastening Pattern. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-20 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps secured with Traxx/1 fasteners spaced 24 in. o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(12): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sikaplan Fastener #15 and Sarnadisc XPN plates spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Laps are sealed with a minimum 0.5" wide outside edge heat weld.

Maximum Design Pressures: -45.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-20 ga., Type B, Grade 80 steel deck fastened to structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps secured with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(13): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, AC Foam-II, AC Foam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening #1: Sarnafastener MAXLoad fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 14" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.
Maximum Design Pressure -45.0 psf (See General Limitation #7)

Fastening #2: Sarnafastener-XP fasteners or OMG Large Head #15 Roofgrip fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.
Maximum Design Pressure -60.0 psf. (See General Limitation #7)



Fastening #3:

Sarnafastener MAXLoad fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 14.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressure -67.5 psf (See General Limitation #7)

Maximum Design Pressures:

See Fastening Pattern. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-20 ga., Type B, Grade 80 steel deck fastened to structural supports spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps secured with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(14): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, AC Foam-II, AC Foam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

Fastening #1: Sikaplan Fastener #15 and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 14.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressures: -60.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22 ga., A1008 SS Grade 80 or A653 Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(15): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.
(Optional)

Fire Barrier: Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.
(Optional)

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, AC Foam-II, AC Foam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below with.

Fastening #1: (*Not with S327 (10 ft)*) Sarnafastener MAXLoad fasteners spaced 18" o.c. through Sarnarail Polymer Batten Strips spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 24" and securing with two Sarnafastener MAXLoad screws spaced 18" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.
Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: (*Not with S327 (10 ft)*) Sarnafasteners-XP fasteners spaced 12" o.c. through Sarnarail Polymer Batten Strips spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 18" and securing with two Sarnafastener XP screws spaced 12" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.
Maximum Design Pressure -45.0 psf. (See General Limitation #7)



Fastening #3:

(With S327 (10 ft)) Sarnafasteners-XP fasteners spaced 6" o.c. through Sarnarail Polymer Batten Strips spaced maximum 144" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP screws spaced 6" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Maximum Design Pressures:

See Fastening Pattern. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(16): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.
(Optional)

Fire Barrier: Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.
(Optional)

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below with.

Fastening #1: Sikaplan Fastener #15 spaced 6" o.c. through Sarnarail Polymer Batten Strips spaced maximum 144" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP screws spaced 6" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressures: -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18-22ga., Type B, Grade 80 steel deck fastened with 0.25 in. thick structural supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(17): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below:

Fastening: Sarnafil MAXLoad or Sarnafastener Maxload fasteners and Sarnadisc MAXLoad Plates spaced 6" o.c. within 7" wide side laps spaced 53" o.c. Laps are sealed with a 1.25" heat weld.

Maximum Design Pressures: -105.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated, New Construction

Deck Description: Min. 18-22 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports at 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(18): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.
(Optional)

Fire Barrier: Minimum 5/8" Type X Gypsum, 1/4" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.
(Optional)

One or more layers of any of the following insulations:

<u>Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III Minimum 1.5" thick or tapered	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below.

Fastening #1: Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip spaced 24" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.
Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad plates spaced 24" o.c. within 6.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #3: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates spaced 12" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps are sealed with a minimum 1.5" wide outside heat weld.
Maximum Design Pressure -45.0 psf. (See General Limitation #7)



- Fastening #4:** Sarnafasteners-XP fasteners and Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.
Maximum Design Pressure -52.5 psf. (See General Limitation #7)
- Fastening #5:** Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip spaced 18" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.
Maximum Design Pressure -52.5 psf. (See General Limitation #7)
- Fastening #6:** Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad plates spaced 18" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -52.5 psf. (See General Limitation #7)
- Fastening #7:** Sarnafasteners-XP fasteners and Sarnadic XPN plates spaced 12" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -60.0 psf. (See General Limitation #7)
- Fastening #8:** Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad plates spaced 12" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -60.0 psf. (See General Limitation #7)
- Fastening #9:** Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.
Maximum Design Pressure -67.5 psf. (See General Limitation #7)
- Fastening #10:** Sarnafasteners-XP fasteners and Sarnadic XPN plates spaced 6" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -90.0 psf. (See General Limitation #7)
- Fastening #11:** Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad plates spaced 6" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a minimum 1.6" wide outside heat weld.
Maximum Design Pressure -105.0 psf. (See General Limitation #7)
- Fastening #12:** Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.
Maximum Design Pressure -112.5 psf. (See General Limitation #7)
- Maximum Design Pressures:** See Fastening Pattern. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 ga., Type B, Grade 80 steel deck shall be secured to ¼" thick structural supports spaced a maximum of 6 ft on centers with Traxx/5 fasteners at the bottom of each rib 6" o.c. and wide side laps fastened with Traxx/1 fasteners spaced 18" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.

System Type D(19): Membrane attached over preliminary fastened insulation.

The following assembly is approved to a maximum design pressure listed with specific fastening patterns. No substitutions shall be made. All General and System Limitations apply.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum or ¼" DensDeck secured with Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension than 4'.

One or more of the following.

<u>Insulation for Base Layer</u>	<u>Fastener Type</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm 25 PSI, AC Foam-II, AC Foam-III, AC Foam Supreme, H-Shield		
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, AC Foam-II, AC Foam-III, ENRGY 3, ENRGY 3 PSI-25, ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime		
Minimum ¼" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below.

Fastening #1: Sarnafastener-XP screws and plates spaced 12" o.c. within 6" wide side laps. Laps spaced 72.5" o.c. and pre-sealed with a shop welded 0.75" wide heat weld on the inside of the lap and a 1.5" wide heat weld on the outside of the lap.

Maximum Design Pressure -45.0 psf. (See General Limitations #7)



- Fastening #2:** Sarnafastener-XP screws and plates spaced 12" o.c. within 5.5" wide side laps. Laps spaced 72.5" o.c. and sealed with a 1.5" wide heat weld.
Maximum Design Pressure -45.0 psf. (See General Limitations #7)
- Fastening #3:** Sarnafastener-XP screws with 2" Sarnadisc- plates spaced 6" o.c. within 5.5" wide side laps. Laps spaced 73" and sealed with a 1.5" wide heat weld.
Maximum Design Pressure -45.0 psf. (See General Limitations #7)
- Fastening #4:** Sarnafastener-XP screws and plates spaced 6" o.c. within 6" wide side laps. Laps spaced 72.5" o.c. and sealed with a 1.5" wide heat weld.
Maximum Design Pressure -75.0 psf. (See General Limitations #7)
- Fastening #5:** Six Sarnabars spaced 3' o.c. maximum fastened with Sarnafastener-XP spaced 6" o.c. through the field of the membrane and covered with a 7" minimum width cover strip with 1.5" welds on each side.
Maximum Design Pressure -112.5 psf. (See General Limitations #7)
- Maximum Design Pressures:** See Fastening Pattern. (See General Limitations #7)

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137; calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE